

## STATEMENT OF CONSIDERATIONS

### REQUEST BY DELPHI AUTOMOTIVE SYSTEMS (DELPHI) FOR AN ADVANCE WAIVER OF DOMESTIC AND FOREIGN RIGHTS TO INVENTIONS MADE UNDER COOPERATIVE AGREEMENT NUMBER DE-FC04-01AL67634, DOE WAIVER NO. W(A) 01-041.

The Petitioner, Delphi, a subcontractor to Electricore, Inc. (Electricore), has requested a waiver of all domestic and foreign patent rights to inventions that it may conceive or first reduce to practice in the course of their work under Cooperative Agreement Number DE-FC04-01AL67634 entitled "Direct Injection Engine Sensors, NOx Sensor for Direct Injection Emission Control" with the U.S. Department of Energy (DOE).

The work to be done will be the development of a robust NOx sensor for use in direct injection light duty diesel engines. The program goal is to create a low cost, wide range NOx sensor compatible with high volume automotive use. Such sensors would be a critical component of advanced exhaust treatment systems to reduce NOx emissions from diesel engines by 80% and reduce particulate emissions by 90%. The research and work to be performed under this Cooperative Agreement will not adversely impact public health, safety or welfare—on the contrary, the results of this research should lead to eventual marked significant reductions in NOx and particulate emissions from future diesel engines (a substantial health benefit).

The agreement covers a period from October 1, 2001 through September 30, 2004 at a total cost to DOE of \$1,515,000. The money to be provided as follows: FY01 -- \$15,000; FY02 -- \$331,000; FY03 -- \$500,000; and FY04 -- \$669,000. Delphi's cost share to this work during the agreement period will be approximately \$1,894,269. Although Electricore was the party that signed the Cooperative Agreement, Electricore will not be contributing any funds under this agreement. Electricore's entire cost share under this agreement is being provided by Delphi. Delphi is the only party in partnership with Electricore under this Cooperative Agreement. The government contribution will be under Budget & Reporting Code EE0503 funded by the Office of Advanced Automotive Technologies.

Delphi has had a continuing research and development effort in the field of automotive sensors for over 25 years—including a specific investment exceeding \$2 million annually for the last five years in the field of planar sensing technology. Delphi will continue to aggressively invest in planar sensing technologies at or exceeding this \$2 million annual level.

The Petitioner, Delphi, is the partner with and technical lead for Electricore under this Cooperative Agreement Number DE-FC04-01AL67634. Electricore is a non-profit organization, while Delphi is the world's largest original equipment manufacturer (OEM) automotive supplier. Delphi has a 25-year history in the design, integration and manufacturing of automotive sensors, as well as worldwide marketing capability to bring any product developed into the widest possible range of automotive use. The grant of

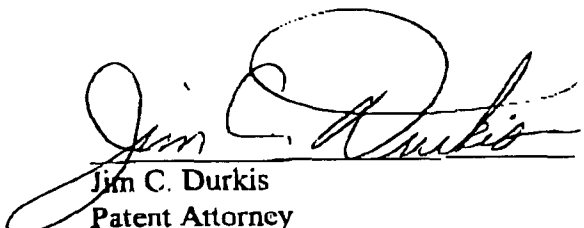
this waiver will allow for swift and thorough commercialization and implementation of emissions sensing technology. Electricore fully supports Delphi's request for waiver of rights to inventions first conceived or actually reduced to practice by Delphi under the auspices of this agreement. Electricore, while having Bayh-Dole rights in inventions arising under this Cooperative Agreement, has no interest in such rights and no staff or mechanism for requesting, obtaining, managing or utilizing such rights. Electricore has agreed to verify, in writing, that they have no objections to this waiver request.

The grant of this waiver will not decrease competition, cause undesirable market concentration, or place Delphi in a dominant market position. Exhaust sensors are a highly competitive and active field. Delphi has substantial competition in the exhaust sensing field from companies in Japan (Denso, NGK Spark Plug, NGK Insulators) and Germany (Robert Bosch). The granting of this waiver will allow Delphi to remain competitive with these foreign companies in this highly competitive market. Delphi is a U.S.-based multinational, headquartered in Troy, Michigan.

Delphi has agreed to abide by 35 U.S.C. §§ 202, 203 and 204, as well as the provisions of the Standard Patent Rights clause for an Advance Waiver. Additionally, Delphi (a U.S. company) has agreed to the provisions of the attached, modified U.S. Competitiveness Clause. Delphi agrees to make this condition binding on any assignee or licensee. Delphi will abide by the Export Control laws and will require its licensees, if any, to do the same. Delphi will expend such sums as may be required to maintain the necessary patent protection and provide incentive for commercial development of the invention.

Considering Petitioner's substantial prior research and prior and on-going contributions to field of emissions sensors, as well as its substantial manufacturing and marketing organization and experience, it is concluded that the grant of the requested waiver is most likely to achieve commercialization success and actual in-engine implementation on a global scale in the shortest possible time.

As such, upon evaluation of the Waiver Petition in view of the objectives and considerations set forth in 10 CFR 784.4, all of which have been considered, it is recommended that the requested waiver be granted.

  
Jim C. Durkis  
Patent Attorney  
DOE, Albuquerque Operations Office

Based on the foregoing Statement of Considerations and the representations of the attached Waiver Petition, it is determined that the interests of the United States and the general public will best be served by a waiver of patent rights of the scope described above and, therefore, the waiver is granted. This waiver shall not apply to a modification or extension of the agreement where, through such modification or extension, the purpose, scope or DOE cost of the agreement has been substantially altered.

CONCURRENCE:



Robert Kirk  
Director, Office of Advanced  
Automotive Technologies (EE-32)

Date: 6/7/02

APPROVAL:



Paul A. Gottlieb  
Assistant General Counsel for  
Technology Transfer and  
Intellectual Property (GC-62)

Date: 6-7-02

DOE Headquarters Project Manager: Kenneth Howden

**Modified U.S. Competitiveness Provision**

The Petitioner, Delphi, agrees to the exert its best efforts to manufacture substantial volumes in the United States of any products embodying any waived invention or produced through the use of any waived invention. The Petitioner further agrees to make the above condition binding on any assignee or licensee or any entity otherwise acquiring rights to any waived invention, including subsequent assignees or licensees. Should the Petitioner or other such entity receiving rights in any waived invention undergo a change in ownership amounting to a controlling interest, then the waiver, assignment, license or other transfer of rights in any waived invention is suspended until approved in writing by DOE.